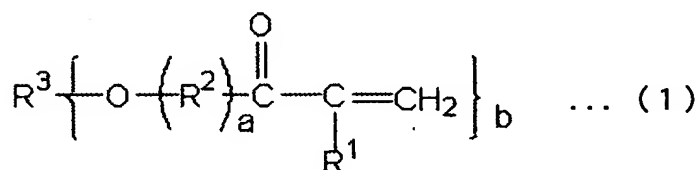


CLAIMS

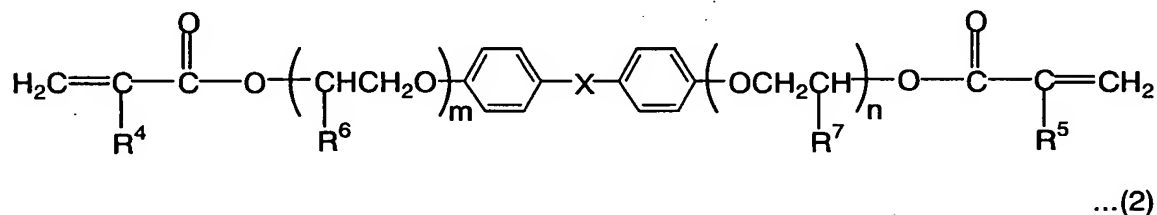
1. A photochromic lens substrate, which comprises a cured product of a polymerization curable composition comprising:

(I) a polyfunctional polymerizable monomer represented by the following formula (1):



wherein R^1 is a hydrogen atom or methyl group, the group $-R^2-$ is $-CH_2CH_2O-$, $-CH_2CH(CH_3)O-$ or $-C(=O)CH_2CH_2CH_2CH_2CH_2O-$, R^3 is a trivalent to hexafunctional organic residue, a is an integer of 0 to 3 and b is an integer of 3 to 6;

(II) a bifunctional polymerizable monomer represented by the following formula (2):



wherein R^4 and R^5 are each independently a hydrogen atom or methyl group, R^6 and R^7 are each independently a hydrogen atom or alkyl group having 1 or 2 carbon atoms, the group $-X-$ is $-O-$, $-S-$, $-S(=O)_2-$, $-C(=O)-O-$, $-CH_2-$, $-CH=CH-$ or $-C(CH_3)_2-$, and m and n satisfy $(m + n) = 0$ to 30; and

(III) a photochromic compound, wherein the fading half-life period of the photochromic compound (III) in the cured product is 30 times or less shorter than the fading half-life period of the photochromic compound (III) in the polymerization curable composition, and the substrate has a tensile strength of 20 Kgf or more.

2. The lens substrate according to claim 1, wherein the

bifunctional polymerizable monomer (II) is a combination of a first bifunctional polymerizable monomer of the above formula (2) in which $(m + n)$ is 0 to 5 and a second bifunctional polymerizable monomer of the above formula (2) in which $(m + n)$ is 6 to 30, and the molar amount of the second bifunctional polymerizable monomer is 3 times or less larger than that of the first bifunctional polymerizable monomer.

3. The lens substrate according to claim 1, wherein the polymerization curable composition further comprises a thermopolymerization initiator, and the polyfunctional polymerizable monomer (I) and the bifunctional polymerizable monomer (II) are contained in amounts of 1 to 15 wt% and 10 to 80 wt% based on the total of all the polymerizable monomers contained in the polymerization curable composition, respectively.

4. The lens substrate according to claim 1, wherein the polymerization curable composition further comprises a photopolymerization initiator, and the polyfunctional polymerizable monomer (I) and the bifunctional polymerizable monomer (II) are contained in amounts of 1 to 60 wt% and 10 to 90 wt% based on the total of all the polymerizable monomers contained in the polymerization curable composition, respectively.

5. The lens substrate according to claim 4, wherein the polymerization curable composition further comprises at least one oligomer selected from the group consisting of bifunctional to hexafunctional polymerizable urethane oligomers and bifunctional to hexafunctional polyester oligomers.

6. A polymerization curable composition comprising:

- (I) a polyfunctional polymerizable monomer represented by the above formula (1);
- (II) a bifunctional polymerizable monomer represented by the above formula (2);
- 5 (III) other polymerizable monomer different from the above polymerizable monomers (I) and (II);
- (IV) a photochromic compound; and
- (V) a thermopolymerization initiator, wherein
the amounts of the polyfunctional polymerizable
10 monomer (I), the bifunctional polymerizable monomer (II) and the other polymerizable monomer (III) are 1 to 15 wt%, 10 to 80 wt% and 5 to 89 wt% based on the total of all the polymerizable monomers, respectively.

15 7. The composition according to claim 6, wherein the amounts of the polyfunctional polymerizable monomer (I), the bifunctional polymerizable monomer (II) and the other polymerizable monomer (III) are 3 to 10 wt%, 20 to 60 wt% and 30 to 77 wt%, respectively.

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8. The composition according to claim 6, wherein the bifunctional polymerizable monomer (II) is a combination of a first bifunctional polymerizable monomer of the above formula (2) in which $(m + n)$ is 0 to 5 and a second bifunctional
25 polymerizable monomer of the above formula (2) in which $(m + n)$ is 6 to 30, and the molar amount of the second bifunctional polymerizable monomer is 3 times or less larger than that of the first bifunctional polymerizable monomer.

30 9. A polymerization curable composition comprising:

- (I) a polyfunctional polymerizable monomer represented by the above formula (1);
- (II) a bifunctional polymerizable monomer represented by the above formula (2);

(III) optionally, other polymerizable monomer different from the above polymerizable monomers (I) and (II);

(IV) a photochromic compound; and

(V) a photopolymerization initiator, wherein

5 the amounts of the polyfunctional polymerizable monomer (I), the bifunctional polymerizable monomer (II) and the other polymerizable monomer (III) are 1 to 60 wt%, 10 to 90 wt% and 0 to 89 wt% based on the total of all the polymerizable monomers, respectively.

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10. The composition according to claim 9, wherein the amounts of the polyfunctional polymerizable monomer (I), the bifunctional polymerizable monomer (II) and the other polymerizable monomer (III) are 10 to 60 wt%, 20 to 90 wt%
15 and 0 to 70 wt%, respectively.

11. The composition according to claim 9, wherein the bifunctional polymerizable monomer (II) is a combination of a first bifunctional polymerizable monomer of the above
20 formula (2) in which $(m + n)$ is 0 to 5 and a second bifunctional polymerizable monomer of the above formula (2) in which $(m + n)$ is 6 to 30, and the molar amount of the second bifunctional polymerizable monomer is 3 times or less larger than that of the first bifunctional polymerizable monomer.

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12. A photochromic lens which comprises the photochromic lens substrate of claim 1, a hard coat layer and a buffer layer, said buffer layer being interposed between the hard coat layer and the substrate and having lower pencil hardness
30 than the hard coat layer, for bonding the substrate to the hard coat layer.